

## ADDRESSES READ AT SUPERVISORS' MEETING

Portland, Oregon, March 21-26, 1910

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## **THE CONDUCT OF TIMBER SALES**

Paper by F. E. Ames, Assistant District Forester  
at Supervisors' Meeting  
March 22, A.M., 1910

The time allotted to me is too short for an extended discussion of the conduct of timber sales. At the same time I want to make my remarks a little broader than a strict adherence to the subject as assigned would allow. Instead of limiting myself to detail, I want to throw but a few suggestions in regard to the big problems in Forest Management which we are up against, with a view to stimulating your own thought and getting you to help us work out solutions.

In the first place did you ever stop to think just what it means to be a Forest Supervisor? Did you ever stand off and let your imagination run wild as to the possibilities of the position? Your answer would probably be that it means a lot of hard work and not much else. Too often a man gets so bogged down with routine and so hard pressed by the little worries that he loses sight of the big things and can't take the broad point of view which should really always be the basis of his judgment. Every Forest Supervisor is entrusted with the supervision of an immense estate on which the problems to be worked out are numberless. You can not often look to precedent; usually there is none, you can not rely on the District Office, you are on your own responsibilities. Now this fact to the right kind of man is not discouraging but is stimulating. There are few conceivable positions which give more opportunity for individual thought, genius and application of ideas, and I want to suggest a few of the lines open to you, to touch on some of the larger problems in connection with the management of the National Forests, and to bring out what seems to me should be the central idea of framing the basis of all our plans.

### **The Place Silviculture Occupies in National Forest Work**

What are the National Forests for? You all know the statement in the Use Book "National Forests are created to preserve a perpetual supply of timber for home industries, to prevent destruction of the forest cover which regulates the flow of streams, and to protect local residents from unfair competition in the use of forest and range." In the few years during which we have been getting the National Forests under way it was necessary that the immediate problems should be first solved. Our boundaries, often established with great haste upon scant information, had to be more carefully gone over, agricultural land had to be eliminated and put to its highest use, trails and cabins had to be built, claims had to be examined. I feel, however, that sometimes in the press of this great task the ultimate purpose of the National Forests has been lost sight of and we have allowed our ideas of the relative importance of the different lines of National Forest work to become somewhat jumbled. I think that some of us need to rearrange our ideas; to straighten out in our minds and get a clearer look at the goal ahead of us.

Grazing work, for instance, is of great importance. The forage resources of the Forests should be utilized; the income derived is large. The supervision of the range is of benefit to the livestock industry which must be protected. Grazing comes into close relation to Silviculture and in most situations they can and will work together without conflict. If they do conflict, however, and one or the other has to give way, the forests' interests must hold precedence. On some of the Forests most of the Supervisors' time is occupied with grazing matters. Timber is only a side issue and any work in connection with it is considered as interfering with the true business of the Forest. It is easy to understand that this is the natural result of the pressure of the grazing business, the small immediate demand for timber work and the necessity of having men capable of doing the work most in need of being done. The respite which you have had, however, will not continue. Soon the timber resources of the eastern Forests in the District will be tapped and you must be prepared to meet the demand with intelligence. Even now there are indications of an increased demand and with the advent of railroads which are now assured we can soon expect much. Let me urge you always to keep clear your perspective of the relations of the different lines of Forest work.

The thought has doubtless occurred to you all, and I know it is not an unpleasant one, that your claims work will in time become a negligible quantity. Homesteads and Timber and Stone claims are a transitory thing; June 11 applications will become only a memory. Mining claims we shall always have, but the work will continue but obviously it is really only an incident in its relation to National Forest work as a whole.

To provide for the systematic conduct of National Forest work necessitates a complicated machinery an efficient force must be procured, quarters must be provided, tools, speaking in a broad sense, must be given you to work with, transportation and means of communication over the Forests must be planned. All these, together with the intricate routine necessary for the systematic organization of the working parts of the machine, come within the field of Operation.

And now what is the place of Silviculture? Silviculture, including as it does timber sales, silvics, planting and reconnaissance, has immediate direction of the work which in reality we are all unquestionably here for.

The problems of the life of the forest are the problems which are in the last analysis, the ones which concern us. The creation of the forest by helping the mature trees to naturally perpetuate themselves or by the more artificial but sometimes more effective plantation, the investigation of the habits, peculiarities, tastes and limitations of the species, and finally the harvest and conversion of the forest into the numberless uses for which it is demanded. This is Silviculture.

Don't misunderstand me by all this to belittle the other branches of Forest work. They are an indispensable means to an end. The Forests must be well manned, transportation must be provided for, accounts must be audited, conflicting claims must be adjusted, the forage resources must be utilized – to what end? That the forest may reach its full development.

I realize that it is not always easy to remember this when you have a hundred grazing permits to every timber sale, or when you are asked to do reconnaissance work and a score of claims are on the list to be examined, but it is an indisputable fact which no one will deny. It does not, of course, follow from this that precedence must always be given to silvicultural work. In the fulfillment of its purpose the foundations of any structure are as important as any of its parts. My one object is to give you a true perspective, to perhaps readjust a little the ideas of some of you as to just what place Silviculture occupies in the scheme we are all trying to work out.

Now what is Silviculture trying to do? Why is Silvics making a Douglas fir second growth study, and a lodgepole pine study? Just what does Planting expect to accomplish by sowing an acre here with seed spots and an acre there by broadcast sowing? What is to be gained by the reconnaissance studies made last year on the coast Forests and planned for this year? What is the aim to the timber sale policy?

The Forest Service is very nearly in the position of a man with some theoretical training and practical experience in the manufacturing world who is suddenly called on to assume management of a large concern. He must know at once the exact amount of each class of goods which make up his stock on hand; he must have an intimate knowledge of each of those classes; he must know the best sources from which he can replenish his stock, the details of manufacture must be familiar to him; he must know how much he should sell each year to make his business a paying one; he must investigate the markets where his goods can be sold. To carry on this business he must have an able corps of assistants, each trained on his branch, transportation is essential, business methods must be put in force.

The analogy is very complete. We are taking stock through reconnaissance studies. This does not mean simply that we are estimating the standing timber on the Forests. We must have complete maps of the Forests and detailed information on the classification of the land, the segregation of the timber into age classes, the quality, condition and distribution of species. Through reconnaissance we obtain complete data, topographical, geographical and statistical of conditions as they now exist.

Through the studies conducted by Silvics we are becoming acquainted with each of the classes of stock. These studies will tell how fast we may expect our second crops to grow, what yield we may expect in a given time, what species are best adapted to various situations, what combinations of species are desirable, what we should do to our Forest stands to make them more valuable. Silvics will tell us **how** to grow our trees,—that is, how to produce our finished product. This data furnishes the scientific basis for the conduct of our business.

The experiments now being conducted by Planting will show us how to replenish our stock, what methods of regeneration promise the greatest success, whether we should sow or plant or depend on natural regeneration in various situations. It is the results of all these investigations, reconnaissance, silvics and planting which, when analyzed and

systematized, form the foundation of our policy, our working plans, our timber sale policy.

We have made a beginning toward a solution of these problems, but only a beginning—not nearly enough to put our timber sale policy on a scientific basis. As you know, only very crude attempts have ever been made to regulate the cutting on the National Forests. Of course we have tried to get complete utilization, low stumps, small tops, etc., and have always kept a second crop and the safety of surrounding timber in mind. Beyond this we have gone little. We do not know how much timber we have, how much our Forests are producing annually, or how much they could be made to produce. Generally we have kept well within safe limits in the amount cut but perhaps at the expense of failing to utilize mature timber. Of necessity the sale policy has been varied to meet the pressure of circumstances which bore no relation to a silvicultural regulation of cutting. The revenue had to be increased, it was necessary to demonstrate that the Forests were paying propositions, the idea that the “reserves” bottled up the resources of the country had to be dispelled.

So far, in this District, the policy has not affected us much; we have been enabled to play safe without any trouble. We could not make any serious mistakes because we have had very few large sales. There has been no possibility of overcutting. Within a very few years, however, we shall be called on to do an immense business, and we have got to know how to do it. District 6 stood fifth in the amount of its gross receipts from the timber sales last fiscal year, having \$60,000 of a total of \$647,000, compared to \$208,000 in District 1. Consider for a moment that the estimated stand on the National Forests of the country is 390 billion feet, and that, of this, District 6 has 287 billion, and add to this the fact that about one-third of the timber in Washington and Oregon is in the National Forests, and what conclusion do you arrive at?

The intervening years before the big demand will be very short ones and there is much to be done. When the time comes and the demand begins to be made on us we must know exactly what we can do. We shall have to be able to say to the inquiring lumberman, “Yes, we have timber for sale; we can sell just about so many board feet this year; it is situated in such a place and I can tell you all about it.” We must know just what regulations should govern the cutting, what method of reproduction in that particular situation will be most effective.

It seems to me logical and probably it will be necessary that before many years the initiative in all sales will come from the Forest Service and not from the purchaser. We now do this when we advertise overmature and dead timber by the General Notice Sale. When our working plans are complete we shall put on the market the timber comprising the annual budget which will be, of course, the timber most in need of cutting. It may not be the timber which purchasers want most, but that will probably make no difference.

In the meantime, what is to govern us in our sale policy? We must act in what seems the best way to fulfill the purposes of the National Forests. The popular idea and

probably the one most likely to occur to the casual thinker is that the best way the National Forests can meet the approaching timber shortage is to cut as lightly as possible and save this supply until then. This idea is probably erroneous. Though we must await the results of the reconnaissance studies to be sure, the data now on hand indicates that there is a large proportion of National Forest lands covered with timber which is past its maximum growth. Much of it is really decreasing in value, through deterioration, faster than it is increasing through volume increment and rise in stumpage value. From no point of view can we make any mistake in cutting timber of this class. The more sales we make the better. Don't wait for an application. Examine the area and when you have complete information try and interest some lumberman. There are many lumbermen yet who don't know we sell timber. Get acquainted with every operator near the Forest and when you have timber you want to sell, go to him and don't wait for an application.

Silviculturally speaking, we should also cut the timber which is much past its period of maximum growth. No doubt a greater financial return might be obtained if some of this timber, which is not deteriorating too rapidly, should be held for a rise in stumpage values, but this consideration has little weight. It is more important that we should bring the Forests into a condition of maximum production than that the timber now on them should be managed to bring the greatest financial return. I believe then that we should try now to make sales in our oldest deteriorating stands and encourage them in our slow growing stands.

On many Forests of the country it has been necessary for some years to set a definite maximum annual cut. This will be done for all Forests this year in the same way that the grazing on each Forest is now authorized by the Secretary of Agriculture. This may seem quite unnecessary on the Forests of this District, and indeed there are very few of them where there is any present danger of approaching the amount which it would be perfectly safe to cut. So don't hesitate to send in your application on this account.

Just as fast as sufficient information is collected, we shall put our Forests under working plans and our cutting will be on the basis of a sustained annual yield, which means, of course, that the average annual cut does not exceed the annual growth of the Forest. I want to touch now upon a few specific points in the conduct of timber sales which will be profitable ones for us to discuss later.

## **Examination of Timber for Sale**

In examining timber for a sale, include a technical man in the party if you have one. His point of view is good to have. Pay special attention to the quality of the timber, methods of reproduction which seem most advisable and costs of logging. Some of our estimates on per cent of grades have turned out abominably bad. The figures on costs of logging are important and especially when the stumpage price is figured pretty closely and a difference of twenty five cents one way or another makes a difference between a profit and loss to the purchaser.

## **Payment on the Basis of an Estimate**

There has been some talk of allowing payment on sales to be made on the basis of an estimate as is now done in some timber settlements. In very small sales, and especially when they are made under certain conditions, I think this change might be a beneficial one. As in the conduct of free use it is sometimes very expensive to have to go a long distance to scale a small amount of timber. In large sales, however, I do not believe we can think of the step at present. We will soon reduce the cost of conducting sales to a low figure, so that the expense of scaling which would be saved will be small. Unless the estimate was extremely accurate we might lose many times as much as we now spend for scaling. The expense of the estimate would be largely increased because it would have to be much more accurate, and high priced men would be necessary. There would be much dickering with the purchaser before an agreement on the estimate could be reached. Any over-estimate would cause trouble.

The change may come for small sales but under the present regulations it can not be allowed.

## **Prices**

As might be expected the subject of prices in sales has caused more wrangling than anything else. The Forest Service, feeling the weight of responsibility put upon it when the National Forests were entrusted to its care, has generally been pretty careful to see that it didn't let go of anything without getting value received. So much stress has been laid on this point that Supervisors realized that high prices received on their Forests didn't injure their standing any, and vice versa. Sales have sometimes been prevented because the Service held out for too high prices. About two years ago it was obvious that there was no clear enough policy in regard to prices. Supervisors on adjacent Forests were getting widely different prices for equally desirable timber. An effort to establish some kind of uniformity resulted in the minimum prices of about December, 1908. The policy established at that time made the minimum prices hard and fast and no sales were to be made below those prices without extremely good reason. In some instances they were established too arbitrarily and while the result was probably generally beneficial, some of the prices established were too high and sales were practically prohibited.

A year ago these prices were revised and an attempt made to make them more logical and reasonable. Some were lowered and some raised. An effort was made to throw the species into classes for which one price might be expected. The general level was not changed much but the policy letter accompanying them made it clear that they were not to be held as minimum prices in the way they had been, but were rather "standard" prices which might serve as a guide to Supervisors, but were not to be regarded as unchangeable. It was emphasized that these prices would never be allowed to stand in the way of sales of timber badly in need of cutting. One or two Supervisors have been given full authority to make unadvertised sales at prices below standard. The present policy has worked out fairly well. A number of large sales have been made at prices

below the standard prices because circumstances seemed to warrant it. As many sales have been made at prices higher than the standard. What this means is that sales are standing more on their own merits and prices are governed by the circumstances in each case. This is as it should be—the prices established for each Forest should serve the purpose of a guidepost and not a pair of bars. The sale of a body of rapidly deteriorating timber which can't be moved at a profit with a stumpage price of over \$2.00 will not be killed because the established price on the Forest is \$2.25. Work up your sales of this kind of timber and I don't believe you will find the District Office standing in the way of making them. In the long term sales provision for a sliding scale of prices should be considered.

## Cost Data

In order to get data on how much our sales were costing us, a form with appropriate space for the various items was prepared and has been submitted as each sale is closed. A summary of the costs on sales initiated and closed during the fiscal year 1909 shows the following interesting figures:

Class	\$50 and under	\$50 to \$100	Over \$100-3/4	Total
No. of sales	106	20	5	131
Average cost per M	\$ .39	\$ .25	\$ .21	
Average cost per M for all sales	\$ .29			
Average prices received for timber cut during period				\$1.34

These figures show a large average profit on sales. Since much of the data going to make up this summary, however, was largely an estimate it should not be taken to mean too much. Let me caution you in regard to these reports. I am a little afraid that some of you, in your anxiety to make your sale business look profitable, may hesitate to allow any sales show a loss. Don't try to make your sales show a profit where there is none. What is wanted is accurate data on costs. It can't be expected that all sales will show a profit and what we want to find out is just how much they really do cost us. If a certain class of sales shows too high a cost we must initiate new methods of conducting them. Don't think that a loss on a sale necessarily indicates inefficiency.



## Reports of Timber Sold and Cut

A comparison for the first half of the fiscal years 1909 and 1910 of the amount and value of timber sold and cut in this District is interesting.

	<u>SOLD</u>		<u>CUT</u>	
	<u>Amount</u>	<u>Value</u>	<u>Amount</u>	<u>Value</u>
1909	16,532 M	\$27,283.00	20,954 M	\$23,621.00
1910	52,106 M	113,888.00	28,667 M	50,945.00
% Increase	215%	317%	35%	115%

If the sales now in prospect go through the per cent of increase for the fiscal year will be much greater than the above.

Sales are now definitely in prospect which amount to several hundred million feet. The largest of these is on the Umpqua to the Fir Lumber Co. The stand is a very old growth of Douglas fir and the price \$2.00 per M. A sale which will soon be consummated on the Olympic of about 30 million, mostly Douglas fir, brought \$2.50 per M. There are several large prospective sales on the Snoqualmie and Crater. From now on we can be certain of increased sales.

Gentlemen, this is about all I have to say. I was puzzled as to the arrangement of my remarks because in order to lead into the discussion which will follow I had to say last what is to me the least unimportant. It is the first part of this paper which I want you to remember. If it has been at all suggestive to you I shall be satisfied.